

NOZZLE WITH THERMALLY CONDUCTIVE DEVICE

ABSTRACT OF THE DISCLOSURE

A nozzle (*e.g.*, a flat nozzle, an asymmetric nozzle, a micro nozzle, a flat micro nozzle, etc.) is configured to make injection molded components. The nozzle includes a nozzle body, a heater associated with the nozzle body, a melt channel running through the nozzle body configured to allow melt material flow, and a thermally conductive device located inside the nozzle body. The thermally conductive device can be configured to produce an even heat profile along an entire length of the melt channel. The nozzle body can be symmetrical or asymmetrical and can be made of a different, less thermally conductive material, than the thermally conductive device. The thermally conductive device can be used to balance a heating profile of the nozzle to produce consistency in melt material viscosity and speed throughout a micro nozzle channel.

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